

# Leon Lefferts

## List of Publications by Year in descending order

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166  
papers

7,507  
citations

50276

46  
h-index

64796

79  
g-index

173  
all docs

173  
docs citations

173  
times ranked

7513  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | The 2020 plasma catalysis roadmap. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 443001.   | 2.8  | 362       |
| 2  | Drop Impact upon Micro- and Nanostructured Superhydrophobic Surfaces. <i>Langmuir</i> , 2009, 25, 12293-12298.   | 3.5  | 279       |
| 3  | Sustainable hydrogen from bio-oil—Steam reforming of acetic acid as a model oxygenate. <i>Journal of Catalysis</i> , 2004, 227, 101-108.   | 6.2  | 268       |
| 4  | Light at the interface: the potential of attenuated total reflection infrared spectroscopy for understanding heterogeneous catalysis in water. <i>Chemical Society Reviews</i> , 2010, 39, 4643.                                 | 38.1 | 267       |
| 5  | Catalytic pyrolysis of microalgae to high-quality liquid bio-fuels. <i>Biomass and Bioenergy</i> , 2011, 35, 3199-3207.  | 5.7  | 263       |
| 6  | Plasma-driven catalysis: green ammonia synthesis with intermittent electricity. <i>Green Chemistry</i> , 2020, 22, 6258-6287.  | 9.0  | 163       |
| 7  | How water droplets evaporate on a superhydrophobic substrate. <i>Physical Review E</i> , 2011, 83, 026306.   | 2.1  | 159       |
| 8  | Bifunctional catalysts for single-stage water-gas shift reaction in fuel cell applications. Part 1. Effect of the support on the reaction sequence. <i>Journal of Catalysis</i> , 2007, 251, 153-162.                            | 6.2  | 157       |
| 9  | Humin based by-products from biomass processing as a potential carbonaceous source for synthesis gas production. <i>Green Chemistry</i> , 2015, 17, 959-972.   | 9.0  | 153       |
| 10 | Steam reforming of acetic acid as a biomass derived oxygenate: Bifunctional pathway for hydrogen formation over Pt/ZrO <sub>2</sub> catalysts. <i>Journal of Catalysis</i> , 2006, 243, 263-269.                                 | 6.2  | 152       |
| 11 | Catalyst deactivation during steam reforming of acetic acid over Pt/ZrO <sub>2</sub> . <i>Chemical Engineering Journal</i> , 2006, 120, 133-137.   | 12.7 | 148       |
| 12 | Structure-dependent activity of CeO <sub>2</sub> supported Ru catalysts for CO <sub>2</sub> methanation. <i>Journal of Catalysis</i> , 2018, 367, 171-180.   | 6.2  | 146       |
| 13 | Exposed Surfaces on Shape-Controlled Ceria Nanoparticles Revealed through ACFM and Water-Gas Shift Reactivity. <i>ChemSusChem</i> , 2013, 6, 1898-1906.  | 6.8  | 134       |
| 14 | Preparation and Application of Carbon-Nanofiber Based Microstructured Materials as Catalyst Supports. <i>Industrial &amp; Engineering Chemistry Research</i> , 2007, 46, 3968-3978.  | 3.7  | 133       |
| 15 | Review: monoclinic zirconia, its surface sites and their interaction with carbon monoxide. <i>Catalysis Science and Technology</i> , 2015, 5, 3473-3490.   | 4.1  | 130       |
| 16 | A bifunctional catalyst for the single-stage water-gas shift reaction in fuel cell applications. Part 2. Roles of the support and promoter on catalyst activity and stability. <i>Journal of Catalysis</i> , 2007, 251, 163-171. | 6.2  | 119       |
| 17 | Building microscopic soccer balls with evaporating colloidal fakir drops. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 16455-16458.                                       | 7.1  | 113       |
| 18 | Catalytic upgrading of biomass pyrolysis vapours using faujasite zeolite catalysts. <i>Biomass and Bioenergy</i> , 2013, 48, 100-110.  | 5.7  | 110       |

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|----|---|------|-----------|
| 19 | Activation of O <sub>2</sub> and CH <sub>4</sub> on yttrium-stabilized zirconia for the partial oxidation of methane to synthesis gas. <i>Journal of Catalysis</i> , 2005, 233, 434-441.                | 6.2  | 102       |
| 20 | Vibrationally Excited Activation of N <sub>2</sub> in Plasma-Enhanced Catalytic Ammonia Synthesis: A Kinetic Analysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 17515-17522.         | 6.7  | 96        |
| 21 | From the Birkeland-Eyde process towards energy-efficient plasma-based NO <sub>x</sub> synthesis: a techno-economic analysis. <i>Energy and Environmental Science</i> , 2021, 14, 2520-2534.             | 30.8 | 96        |
| 22 | Oxidative conversion of propane over lithium-promoted magnesia catalyst I. Kinetics and mechanism. <i>Journal of Catalysis</i> , 2003, 218, 296-306.  | 6.2  | 94        |
| 23 | Selective reduction of NO to N <sub>2</sub> in the presence of oxygen over supported silver catalysts. <i>Applied Catalysis B: Environmental</i> , 2002, 37, 205-216.                                   | 20.2 | 90        |
| 24 | Valorization of Humin-Based Byproducts from Biomass Processing: A Route to Sustainable Hydrogen. <i>ChemSusChem</i> , 2013, 6, 1651-1658.   | 6.8  | 86        |
| 25 | Immobilization of a layer of carbon nanofibres (CNFs) on Ni foam: A new structured catalyst support. <i>Journal of Materials Chemistry</i> , 2005, 15, 1946.  | 6.7  | 85        |
| 26 | Mechanistic aspects of the formation of carbon-nanofibers on the surface of Ni foam: A new microstructured catalyst support. <i>Journal of Catalysis</i> , 2006, 239, 460-469.                          | 6.2  | 81        |
| 27 | Aqueous Phase Reforming of ethylene glycol – Role of intermediates in catalyst performance. <i>Journal of Catalysis</i> , 2012, 292, 239-245.   | 6.2  | 77        |
| 28 | In situ ATR-IR study of CO adsorption and oxidation over Pt/Al <sub>2</sub> O <sub>3</sub> in gas and aqueous phase: Promotion effects by water and pH. <i>Journal of Catalysis</i> , 2007, 246, 66-73. | 6.2  | 76        |
| 29 | Ceria Nanocatalysts: Shape Dependent Reactivity and Formation of OH. <i>ChemCatChem</i> , 2013, 5, 479-489.   | 3.7  | 76        |
| 30 | Role of Re in Pt-Re/TiO <sub>2</sub> catalyst for water gas shift reaction: A mechanistic and kinetic study. <i>Applied Catalysis B: Environmental</i> , 2008, 80, 129-140.                             | 20.2 | 73        |
| 31 | Design of a stable steam reforming catalyst – A promising route to sustainable hydrogen from biomass oxygenates. <i>Applied Catalysis B: Environmental</i> , 2009, 90, 38-44.                           | 20.2 | 72        |
| 32 | Steam reforming of phenol over Ni-based catalysts – A comparative study. <i>Applied Catalysis B: Environmental</i> , 2011, 106, 280-286.  | 20.2 | 71        |
| 33 | Effects of Morphology of Cerium Oxide Catalysts for Reverse Water Gas Shift Reaction. <i>Catalysis Letters</i> , 2016, 146, 770-777.  | 2.6  | 66        |
| 34 | Reaction scheme of partial oxidation of methane to synthesis gas over yttrium-stabilized zirconia. <i>Journal of Catalysis</i> , 2004, 225, 388-397.  | 6.2  | 63        |
| 35 | How Carbon-Nano-Fibers attach to Ni foam. <i>Carbon</i> , 2008, 46, 1638-1647.  | 10.3 | 60        |
| 36 | Growing a carbon nano-fiber layer on a monolith support; effect of nickel loading and growth conditions. <i>Journal of Materials Chemistry</i> , 2004, 14, 1590.  | 6.7  | 58        |

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|----|---|------|-----------|
| 37 | Effect of surface composition of yttrium-stabilized zirconia on partial oxidation of methane to synthesis gas. <i>Journal of Catalysis</i> , 2005, 230, 291-300.  | 6.2  | 55        |
| 38 | Water and carbon oxides on monoclinic zirconia: experimental and computational insights. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 20650-20664.  | 2.8  | 55        |
| 39 | Preparation of well-dispersed Pt/SiO <sub>2</sub> catalysts using low-temperature treatments. <i>Applied Catalysis A: General</i> , 2006, 301, 51-58.   | 4.3  | 53        |
| 40 | Thin layer of carbon-nano-fibers (CNFs) as catalyst support for fast mass transfer in hydrogenation of nitrite. <i>Applied Catalysis A: General</i> , 2010, 383, 24-32.   | 4.3  | 53        |
| 41 | Comparative study of steam reforming of methane, ethane and ethylene on Pt, Rh and Pd supported on yttrium-stabilized zirconia. <i>Applied Catalysis A: General</i> , 2007, 332, 310-317.   | 4.3  | 52        |
| 42 | The importance of acid site locations for n-butene skeletal isomerization on ferrierite. <i>Journal of Molecular Catalysis A</i> , 2000, 162, 147-157.  | 4.8  | 51        |
| 43 | Oxidative conversion of propane over lithium-promoted magnesia catalyst II. Active site characterization and hydrocarbon activation. <i>Journal of Catalysis</i> , 2003, 218, 307-314.  | 6.2  | 50        |
| 44 | Formation of high surface area Li/MgO <sup>+</sup> Efficient catalyst for the oxidative dehydrogenation/cracking of propane. <i>Applied Catalysis A: General</i> , 2006, 310, 105-113.  | 4.3  | 50        |
| 45 | Sustainable route to hydrogen – Design of stable catalysts for the steam gasification of biomass related oxygenates. <i>Applied Catalysis B: Environmental</i> , 2009, 88, 59-65.   | 20.2 | 49        |
| 46 | Interplay of Bonding and Geometry of the Adsorption Complexes of Light Alkanes within Cationic Faujasites. Combined Spectroscopic and Computational Study. <i>Journal of Physical Chemistry B</i> , 2006, 110, 22618-22627.                   | 2.6  | 48        |
| 47 | The influence of water and pH on adsorption and oxidation of CO on Pd/Al <sub>2</sub> O <sub>3</sub> – an investigation by attenuated total reflection infrared spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 641-649. | 2.8  | 48        |
| 48 | Ru decorated carbon nanotubes – a promising catalyst for reforming bio-based acetic acid in the aqueous phase. <i>Green Chemistry</i> , 2014, 16, 864.  | 9.0  | 48        |
| 49 | An in situ ATR-IR spectroscopy study of aluminas under aqueous phase reforming conditions. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 23795-23804.  | 2.8  | 46        |
| 50 | Steam reforming of acetic acid – A major component in the volatiles formed during gasification of humin. <i>Applied Catalysis B: Environmental</i> , 2015, 163, 74-82.  | 20.2 | 46        |
| 51 | Oxidative conversion of light alkanes to olefins over alkali promoted oxide catalysts. <i>Applied Catalysis A: General</i> , 2002, 227, 287-297.  | 4.3  | 45        |
| 52 | CO Adsorption and Oxidation at the Catalyst-Water Interface: An Investigation by Attenuated Total Reflection Infrared Spectroscopy. <i>Langmuir</i> , 2006, 22, 1079-1085.  | 3.5  | 43        |
| 53 | Supported Pd Catalysts Prepared via Colloidal Method: The Effect of Acids. <i>ACS Catalysis</i> , 2013, 3, 2341-2352.   | 11.2 | 43        |
| 54 | Towards Stable Catalysts for Aqueous Phase Conversion of Ethylene Glycol for Renewable Hydrogen. <i>ChemSusChem</i> , 2013, 6, 1717-1723.   | 6.8  | 43        |

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|----|---|------|-----------|
| 55 | Role of Surface Defects in Activation of O <sub>2</sub> and N <sub>2</sub> O on ZrO <sub>2</sub> and Yttrium-Stabilized ZrO <sub>2</sub> . Journal of Physical Chemistry B, 2005, 109, 9550-9555.   | 2.6  | 42        |
| 56 | Catalytic oxidative cracking of hexane as a route to olefins. Applied Catalysis A: General, 2010, 372, 167-174.   | 4.3  | 42        |
| 57 | Ruthenium catalyst on carbon nanofiber support layers for use in silicon-based structured microreactors. Part II: Catalytic reduction of bromate contaminants in aqueous phase. Applied Catalysis B: Environmental, 2011, 102, 243-250.                           | 20.2 | 41        |
| 58 | Isomerization of Linear Butenes to iso-Butene over Medium Pore Zeolites. Journal of Catalysis, 2001, 197, 68-80.  | 6.2  | 40        |
| 59 | Nature of nitrogen specie in coke and their role in NO <sub>x</sub> formation during FCC catalyst regeneration. Applied Catalysis B: Environmental, 2005, 59, 205-211.  | 20.2 | 40        |
| 60 | Single stage water gas shift conversion over Pt/TiO <sub>2</sub> – Problem of catalyst deactivation. Applied Catalysis A: General, 2008, 338, 66-71.  | 4.3  | 40        |
| 61 | Effect of pH on the Nitrite Hydrogenation Mechanism over Pd/Al <sub>2</sub> O <sub>3</sub> and Pt/Al <sub>2</sub> O <sub>3</sub> : Details Obtained with ATR-IR Spectroscopy. Journal of Physical Chemistry C, 2011, 115, 1186-1194.                              | 3.1  | 40        |
| 62 | Beyond Haber-Bosch: The renaissance of the Claude process. International Journal of Hydrogen Energy, 2021, 46, 21566-21579.   | 7.1  | 37        |
| 63 | Carbon Nanotubes: A Promising Catalyst Support Material for Supercritical Water Gasification of Biomass Waste. ChemCatChem, 2012, 4, 2068-2074.   | 3.7  | 36        |
| 64 | Plasma-catalytic ammonia synthesis beyond thermal equilibrium on Ru-based catalysts in non-thermal plasma. Catalysis Science and Technology, 2021, 11, 2834-2843.   | 4.1  | 36        |
| 65 | Steam- and autothermal-reforming of n-butanol over Rh/ZrO <sub>2</sub> catalyst. Catalysis Today, 2015, 244, 47-57.   | 4.4  | 34        |
| 66 | Steam reforming of n-butanol over Rh/ZrO <sub>2</sub> catalyst: role of 1-butene and butyraldehyde. Applied Catalysis B: Environmental, 2016, 182, 33-46.   | 20.2 | 34        |
| 67 | Catalytic Performance of Ni/CeO <sub>2</sub> /X-ZrO <sub>2</sub> (X = Ca, Y) Catalysts in the Aqueous-Phase Reforming of Methanol. Nanomaterials, 2019, 9, 1582.  | 4.1  | 34        |
| 68 | In Situ Attenuated Total Reflection Infrared (ATR-IR) Study of the Adsorption of NO <sub>2</sub> , NH <sub>2</sub> OH, and NH <sub>4</sub> <sup>+</sup> on Pd/Al <sub>2</sub> O <sub>3</sub> and Pt/Al <sub>2</sub> O <sub>3</sub> . Langmuir, 2008, 24, 869-879. | 3.5  | 32        |
| 69 | Catalytic Conversion of Biomass Pyrolysis Vapours over Sodium-Based Catalyst: A Study on the State of Sodium on the Catalyst. ChemCatChem, 2015, 7, 1833-1840.  | 3.7  | 31        |
| 70 | Non-conventional oxidation catalysis. Catalysis Today, 2005, 100, 63-69.  | 4.4  | 30        |
| 71 | Partial oxidation of methane by O <sub>2</sub> and N <sub>2</sub> O to syngas over yttrium-stabilized ZrO <sub>2</sub> . Catalysis Today, 2006, 112, 82-85.   | 4.4  | 30        |
| 72 | The effects of morphology of cerium oxide catalysts for dehydrogenation of ethylbenzene to styrene. Applied Catalysis A: General, 2015, 505, 354-364.   | 4.3  | 30        |

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|----|--|------|-----------|
| 73 | Steam reforming of biomass based oxygenatesâ€”Mechanism of acetic acid activation on supported platinum catalysts. <i>Journal of Catalysis</i> , 2008, 257, 229-231.   | 6.2  | 28        |
| 74 | Growth of carbon nanofiber coatings on nickel thin films on fused silica by catalytic thermal chemical vapor deposition: On the use of titanium, titaniumâ€”tungsten and tantalum as adhesion layers. <i>Surface and Coatings Technology</i> , 2009, 203, 3435-3441. | 4.8  | 28        |
| 75 | Mechanistic Investigation of the Heterogeneous Hydrogenation of Nitrite over Pt/Al <sub>2</sub> O <sub>3</sub> by Attenuated Total Reflection Infrared Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2009, 113, 2503-2511.                                  | 3.1  | 28        |
| 76 | Feasibility Study of Plasma-Catalytic Ammonia Synthesis for Energy Storage Applications. <i>Catalysts</i> , 2020, 10, 999.   | 3.5  | 28        |
| 77 | Presence of Lithium Ions in MgO Lattice: Surface Characterization by Infrared Spectroscopy and Reactivity towards Oxidative Conversion of Propane. <i>Langmuir</i> , 2008, 24, 8220-8228.  | 3.5  | 27        |
| 78 | In situ ATR-IR studies in aqueous phase reforming of hydroxyacetone on Pt/ZrO <sub>2</sub> and Pt/AlO(OH) catalysts: The role of aldol condensation. <i>Applied Catalysis B: Environmental</i> , 2018, 232, 454-463.   | 20.2 | 27        |
| 79 | Improving the Energy Yield of Plasma-Based Ammonia Synthesis with In Situ Adsorption. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 1994-2000.  | 6.7  | 27        |
| 80 | Applied Molecular Simulations over FER-, TON-, and AEL-Type Zeolites. <i>Journal of Catalysis</i> , 2001, 203, 351-361.  | 6.2  | 26        |
| 81 | Stable and Efficient Ptâ€”Re/TiO <sub>2</sub> catalysts for Waterâ€”Gasâ€”Shift: On the Effect of Rhenium. <i>ChemCatChem</i> , 2013, 5, 557-564.  | 3.7  | 26        |
| 82 | Adsorbed species on Pd catalyst during nitrite hydrogenation approaching complete conversion. <i>Journal of Catalysis</i> , 2016, 337, 102-110.  | 6.2  | 26        |
| 83 | Effect of chlorine on performance of Pd catalysts prepared via colloidal immobilization. <i>Catalysis Today</i> , 2017, 297, 308-315.  | 4.4  | 26        |
| 84 | Mechanism of nitrite hydrogenation over Pd/ $\gamma$ -Al <sub>2</sub> O <sub>3</sub> according a rigorous kinetic study. <i>Journal of Catalysis</i> , 2020, 383, 124-134.   | 6.2  | 26        |
| 85 | Ceramic microfluidic monoliths by ice templating. <i>Microporous and Mesoporous Materials</i> , 2010, 134, 216-219.  | 4.4  | 25        |
| 86 | Carbon nanotube/carbon nanofiber growth from industrial by-product gases on low- and high-alloy steels. <i>Carbon</i> , 2012, 50, 4722-4731.   | 10.3 | 25        |
| 87 | Nonâ€”oxidative methane coupling to C <sub>2</sub> hydrocarbons in a microwave plasma reactor. <i>Plasma Processes and Polymers</i> , 2018, 15, 1800087.   | 3.0  | 25        |
| 88 | Comparison of Ag/Al <sub>2</sub> O <sub>3</sub> and Ag-ZSM5 catalysts for the selective reduction of NO with propylene in the presence of oxygen. <i>Applied Catalysis B: Environmental</i> , 2003, 42, 25-34.   | 20.2 | 24        |
| 89 | 1921â€”2021: A Century of Renewable Ammonia Synthesis. <i>Sustainable Chemistry</i> , 2022, 3, 149-171.  | 4.7  | 24        |
| 90 | Ruthenium catalyst on carbon nanofiber support layers for use in silicon-based structured microreactors, Part I: Preparation and characterization. <i>Applied Catalysis B: Environmental</i> , 2011, 102, 232-242.   | 20.2 | 21        |

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|-----|---|------|-----------|
| 91  | Investigation of Ceâ€Zr Oxideâ€Supported Ni Catalysts in the Steam Reforming of <i>meta</i> -Cresol as a Model Component for Bioâ€Derived Tar. <i>ChemCatChem</i> , 2015, 7, 468-478.   | 3.7  | 21        |
| 92  | Ni in CNFs: Highly Active for Nitrite Hydrogenation. <i>ACS Catalysis</i> , 2016, 6, 5432-5440.   | 11.2 | 21        |
| 93  | Plasma Catalysis: Distinguishing between Thermal and Chemical Effects. <i>Catalysts</i> , 2019, 9, 185.   | 3.5  | 21        |
| 94  | Adsorption and Activation of Water on Cuboctahedral Rhodium and Platinum Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2017, 121, 4324-4331.  | 3.1  | 20        |
| 95  | Propane selective oxidation on alkaline earth exchanged zeolite Y: room temperature in situ IR study. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 4407.   | 2.8  | 19        |
| 96  | Mechanistic Aspects of Catalytic Steam Reforming of Biomass-related Oxygenates. <i>Topics in Catalysis</i> , 2008, 49, 68-72.   | 2.8  | 19        |
| 97  | Effect of Ca <sup>2+</sup> Position in Zeolite Y on Selective Oxidation of Propane at Room Temperature. <i>Journal of Physical Chemistry B</i> , 2004, 108, 15728-15734.  | 2.6  | 18        |
| 98  | Catalytic oxidative cracking as a route to olefins: Oxidative conversion of hexane over MoO <sub>3</sub> -Li/MgO. <i>Catalysis Today</i> , 2010, 157, 345-350.  | 4.4  | 18        |
| 99  | Catalyst-assisted DBD plasma for coupling of methane: Minimizing carbon-deposits by structured reactors. <i>Catalysis Today</i> , 2021, 369, 210-220.   | 4.4  | 18        |
| 100 | Oxidative Conversion of Propane in a Microreactor in the Presence of Plasma over MgO-Based Catalysts: An Experimental Study. <i>Journal of Physical Chemistry C</i> , 2008, 112, 4267-4274.   | 3.1  | 17        |
| 101 | Egg-shell membrane reactors for nitrite hydrogenation: Manipulating kinetics and selectivity. <i>Applied Catalysis B: Environmental</i> , 2018, 224, 276-282.   | 20.2 | 17        |
| 102 | Competitive Adsorption of Nitrite and Hydrogen on Palladium during Nitrite Hydrogenation. <i>ChemCatChem</i> , 2018, 10, 3770-3776.   | 3.7  | 17        |
| 103 | Effect of oxygen on formic acid decomposition over Pd catalyst. <i>Journal of Catalysis</i> , 2021, 394, 342-352.   | 6.2  | 17        |
| 104 | Formation of M <sup>2+</sup> (O <sub>2</sub> )(C <sub>3</sub> H <sub>8</sub> ) Species in Alkaline-Earth-Exchanged Y Zeolite during Propane Selective Oxidation. <i>Journal of Physical Chemistry B</i> , 2005, 109, 18361-18368.                     | 2.6  | 16        |
| 105 | Alkane Activation at Ambient Temperatures: Unusual Selectivities, C <sub>1</sub> ¸C, C <sub>1</sub> ¸H Bond Scission versus C <sub>1</sub> ¸C Bond Coupling. <i>ChemPhysChem</i> , 2008, 9, 533-537.  | 2.1  | 16        |
| 106 | Production of C <sub>3</sub> /C <sub>4</sub> Olefins from <i>n</i> -Hexane: Conceptual Design of a Catalytic Oxidative Cracking Process and Comparison to Steam Cracking. <i>Industrial &amp; Engineering Chemistry Research</i> , 2011, 50, 342-351. | 3.7  | 16        |
| 107 | On the mechanism for the plasma-activated N <sub>2</sub> dissociation on Ru surfaces. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 393002.   | 2.8  | 16        |
| 108 | Influence of the Catalyst Particle Size on the Aqueous Phase Reforming of n-Butanol Over Rh/ZrO <sub>2</sub> . <i>Frontiers in Chemistry</i> , 2020, 8, 17.   | 3.6  | 16        |

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|-----|---|------|-----------|
| 109 | Selective reduction of NO with propylene in the presence of oxygen over Co- and Pt-Co promoted HY. Applied Catalysis B: Environmental, 2002, 39, 233-246.   | 20.2 | 15        |
| 110 | Catalyst Activation by Microplasma for Carbon Nanofiber Synthesis in a Microreactor. IEEE Transactions on Plasma Science, 2009, 37, 985-992.  | 1.3  | 15        |
| 111 | Influence of internal diffusion on selective hydrogenation of 4-carboxybenzaldehyde over palladium catalysts supported on carbon nanofiber coated monolith. Applied Catalysis A: General, 2015, 498, 222-229. | 4.3  | 15        |
| 112 | Influence of potassium on the competition between methane and ethane in steam reforming over Pt supported on yttrium-stabilized zirconia. Applied Catalysis A: General, 2008, 346, 90-95.                     | 4.3  | 14        |
| 113 | On-chip microplasma reactors using carbon nanofibres and tungsten oxide nanowires as electrodes. Journal Physics D: Applied Physics, 2008, 41, 194009.  | 2.8  | 14        |
| 114 | Lithium ions incorporation in MgO for oxidative dehydrogenation/cracking of propane: Active site characterization and mechanism of regeneration. Catalysis Today, 2009, 145, 19-26.                           | 4.4  | 14        |
| 115 | ATR-IR spectroscopic cell for in situ studies at solid-liquid interface at elevated temperatures and pressures. Catalysis Today, 2017, 283, 185-194.  | 4.4  | 14        |
| 116 | Catalytic Oxidative Cracking of Light Alkanes to Alkenes. European Journal of Inorganic Chemistry, 2018, 2018, 1956-1968.   | 2.0  | 14        |
| 117 | In situ CVD of carbon nanofibers in a microreactor. Catalysis Today, 2010, 150, 128-132.  | 4.4  | 13        |
| 118 | Challenges in the production of sustainable fuels from pyrolysis oil – Design of efficient catalysts for gasification of char. Applied Catalysis B: Environmental, 2011, 101, 587-597.                        | 20.2 | 13        |
| 119 | Carbon nano-fiber based membrane reactor for selective nitrite hydrogenation. Catalysis Today, 2016, 273, 50-61.  | 4.4  | 13        |
| 120 | Enhanced catalytic activity and stability of nanoshaped Ni/CeO <sub>2</sub> for CO <sub>2</sub> methanation in micro-monoliths. Catalysis Today, 2022, 383, 205-215.  | 4.4  | 13        |
| 121 | Selective removal of NO <sub>2</sub> in the presence of oxygen and NO over Pd/SiO <sub>2</sub> catalysts. Applied Catalysis B: Environmental, 2004, 50, 143-151.  | 20.2 | 12        |
| 122 | Desorption of Acetone from Alkaline-Earth Exchanged Y Zeolite after Propane Selective Oxidation. Journal of Physical Chemistry B, 2004, 108, 218-223.   | 2.6  | 12        |
| 123 | Effect of V in La <sub>2</sub> Ni <sub>x</sub> V <sub>1-x</sub> O <sub>4</sub> on selective oxidative dehydrogenation of propane. Applied Catalysis A: General, 2010, 378, 144-150.                           | 4.3  | 12        |
| 124 | Aliphatic Hydrocarbons from Lignocellulose by Pyrolysis over Cesium-Modified Amorphous Silica Alumina Catalysts. ChemCatChem, 2015, 7, 3386-3396.   | 3.7  | 12        |
| 125 | Synergy between dielectric barrier discharge plasma and calcium oxide for reverse water gas shift. Chemical Engineering Journal, 2020, 392, 123806.   | 12.7 | 12        |
| 126 | Effect of zeolite geometry for propane selective oxidation on cation electrostatic field of Ca <sup>2+</sup> exchanged zeolites. Microporous and Mesoporous Materials, 2006, 91, 187-195.                     | 4.4  | 10        |



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|-----|---|------|-----------|
| 127 | Frozen slurry catalytic reactor: A new structured catalyst for transient studies in liquid phase. <i>Applied Catalysis A: General</i> , 2008, 351, 159-165.   | 4.3  | 10        |
| 128 | Pathway Study on Dielectric Barrier Discharge Plasma Conversion of Hexane. <i>Journal of Physical Chemistry C</i> , 2010, 114, 18903-18910.   | 3.1  | 10        |
| 129 | Molecular level insights to the interaction of toluene with ZrO <sub>2</sub> -based biomass gasification gas clean-up catalysts. <i>Applied Catalysis B: Environmental</i> , 2013, 142-143, 769-779.                                | 20.2 | 10        |
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